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November 8, 2017

The Honorable Ajit Pai
Chairman
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Chairman Pai:

This letter is regarding what could be an exciting new broadcast technology standard, ATSC 3.0, and the implications it will have on consumers across the country. Broadcasters and other stakeholders deserve credit in developing this new standard that will undoubtedly bring significant benefits to consumers including more localized safety warnings and improved picture quality. Enhancing these capabilities will help our nation's broadcasters perform their critically important mission of providing the American people with free over-the-air programming.

However, ATSC 3.0 is also much more comprehensive than just improving picture quality and safety warnings. It is my understanding that the new standard also contemplates targeted advertisements that would be "relevant to you and what you actually might want to see." This raises questions about how advertisers and broadcasters will gather the demographic information from consumers which are necessary to do targeted advertisements, and what privacy protections will be in place for consumers. It is also my understanding that ATSC 3.0 will not be backwards-compatible, which means consumers will be forced to replace their televisions if it is widely adopted.

While there are undoubtedly critical benefits of ATSC 3.0, we deserve to have a complete understanding of the overall impacts of this new standard. We should be having a robust dialogue about the privacy implications of this new standard as well as ensuring we are doing everything possible for consumers in any transition. This is critically important and very timely as the Commission is set to consider a Report and Order and Further Notice of Proposed Rulemaking authorizing the use of ATSC 3.0 during the Open Commission Meeting on November 16, 2017. Although privacy concerns were raised in the record, it was not addressed at all in the draft order released by the Commission. In fact, the word "privacy" is not even mentioned a single time in the entire draft order the FCC will soon take up. You further noted in recent testimony that the FCC is only considering the technical standards associated with ATSC 3.0, but this technical review cannot be separated from a review of privacy and security concerns. That is in fact the meaning of the phrase "privacy and security by design."

This continues a troubling pattern of indifference at the FCC towards consumer privacy. To better address these concerns, I respectfully request answers to the following questions so that we call better understand the impacts of ATSC 3.0 on the consumer and how the FCC intends to consider privacy issues moving forward.

1. You noted in response to my questions at a recent FCC Oversight Hearing before the House Committee on Communications and Technology that the Federal Trade Commission (FTC) will have a role in overseeing the privacy of ATSC 3.0 users. Has FCC staff coordinated with FTC staff to discuss these issues to ensure the FCC does not approve a technical standard that fails to adequately protect consumers' privacy or security?

2. It is my understanding that there are several different business models for targeted advertisements under ATSC 3.0. One model includes building transmitters similar to cell towers around the DMA to do regional advertising. I understand this is a very capital intensive process with a high operating expense, but that it would not require the collection of personal information from consumers. Is that correct? If no personal information from consumers is required, what standards will be applied to determine whether my constituents would choose to see targeted advertisements or not?

3. It is my understanding that a second business model for targeted advertisements involves delivery via the internet. In this scenario will the age, sex, address, and other demographic information would be collected in order to deliver targeted advertising? Would consumers have to provide consent in order for their data to be collected? Could they choose not to provide their demographic information and not receive targeted advertisements but still receive the enhanced picture quality and public safety communications? If a consumer decides to provide their personal information, who is responsible for protecting it?

4. It is my understanding that another business model would use an encrypted signal, even for over-the-air television broadcasts that have traditionally been free. Would this require consumers to use some sort of encryption key to access the signal? Would such a key require a consumer to enter their age, address, gender, and other demographic information? If the free over-the-air signal is encrypted and needs demographic information from a consumer to access it, do you still consider this service to be "free" in your opinion?

5. There have been media reports that ATSC 3.0 would allow for better collection of audience data and would use this information as a sales tool for the advertisers, rather than relying on Nielsen or other measurement data. Will the new standards permit broadcasters to collect data on age, sex, income, address, or any other personal information? How will they be permitted to use this information? Will consumers be able to opt-out of having their data collected for this purpose?

6. It appears that new ATSC 3.0-capable TV sets could be susceptible to hacking, malware, and other potential computer viruses that could lead to predatory advertising instead of legitimate commercials. Is there anything contained in the proposal to address this potential problem?

7. How many TV sets are in the country today, and what will happen to them when ATSC 3.0 is deployed? How many TV sets will need to be replaced when broadcasters are not required to carry both the current ATSC 1.0 signal and the new ATSC 3.0 signal? What would you estimate the approximate cost to consumers to replace these sets?

Thank you for your attention to these important issues. Answers to my questions will help give the American people confidence that we are adequately considering all of the impacts this new standards will have on consumers. I look forward to receiving your response and please do not hesitate to contact me directly if you have any questions or concerns.

Sincerely,

Debbie Dingell

Debbie Dingell
Member of Congress

CC: The Honorable Mignon Clyburn, Commissioner, Federal Communications Commission
The Honorable Michael O'Reilly, Commissioner, Federal Communications Commission
The Honorable Brendan Carr, Commissioner, Federal Communications Commission
The Honorable Jessica Rosenworcel, Commissioner, Federal Communications Commission
The Honorable Greg Walden, Chairman, House Committee on Energy and Commerce
The Honorable Frank Pallone, Ranking Member, House Committee on Energy and Commerce

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF
THE CHAIRMAN

February 6, 2018

The Honorable Debbie Dingell
U.S. House of Representatives
116 Cannon House Office Building
Washington, D.C. 20515

Dear Congresswoman Dingell:

Thank you for your letter inquiring about the next generation broadcast television transmission standard, known as ATSC 3.0 or Next Gen TV, and the implications it will have on American consumers.

On November 16, 2017, the Commission adopted a *Report and Order* authorizing the voluntary deployment of ATSC 3.0 by broadcasters. As the world's first IP-based broadcast transmission platform, Next Gen TV is expected to bring a myriad of benefits to American consumers, including Ultra High Definition video and immersive audio, interactive educational programming, enhanced accessibility features, and advanced emergency alerting capabilities. Importantly, Next Gen TV will be wholly voluntary and market-driven. No broadcaster will be required to use the Next Gen TV standard. Further, since broadcasters deploying the Next Gen TV standard will be required to simulcast their programming using the current generation digital television (DTV) standard, consumers will not have to buy new television sets or converter equipment for their current television sets to receive free, over-the-air television programming.

Responses to your questions are provided below.

Q1. You noted in response to my questions at a recent FCC Oversight Hearing before the House Committee on Communications and Technology that the Federal Trade Commission (FTC) will have a role in overseeing the privacy of ATSC 3.0 users. Has FCC staff coordinated with FTC staff to discuss these issues to ensure the FCC does not approve a technical standard that fails to adequately protect consumers' privacy or security?

The Commission's approval of the technical standards for ATSC 3.0 did not raise novel privacy issues requiring coordination with the FTC. If Next Gen TV broadcasters fail to ensure that consumers' personal information is protected, the FTC has broad authority to enforce consumers' privacy rights. Section 5 of the FTC Act, which prohibits unfair and deceptive practices in the marketplace, gives the FTC the authority to take enforcement action against companies that fail to adhere to their stated privacy and security policies. Additionally, the FCC intends to closely monitor the transition to Next Gen TV.

Q2. It is my understanding that there are several different business models for targeted advertisements under ATSC 3.0. One model includes building transmitters similar to cell towers around the DMA to do regional advertising. I understand this is a very capital intensive process with a high operating expense, but that it would not require the collection

of personal information from consumers. Is that correct? If no personal information from consumers is required, what standards will be applied to determine whether my constituents would choose to see targeted advertisements or not?

Based on the specifications in the ATSC 3.0 technical standard, there are multiple ways in which an ATSC 3.0 broadcaster could provide geographically targeted advertising without collecting consumers' personal information. To provide geographically targeted ads, the broadcaster transmits multiple simultaneous advertisements, and the consumer's receiver determines which ad to display. One way multiple advertisements can be sent is through the use of Single Frequency Networks (SFNs), a technique that broadcasters use to transmit signals on the same frequency from multiple antennas in a local geographic area in order to improve coverage of the broadcast station. Geographically targeted advertising could also be enabled by the local collection by the receiver of a zip code or some other location information provided by the consumer during the set-up of the receiver. The receiver would never have to transmit that information back to the broadcaster or anyone else. Such geographically targeted advertising could allow a small regional business to advertise only to those viewers residing in its local geographic area, rather than to the entire television market. You are correct that such geographically targeted advertising would not require the centralized collection of personal information from consumers. There also is no need to enable consumers to opt in or opt out of such geographically relevant advertising.

Q3. It is my understanding that a second business model for targeted advertisements involves delivery via the internet. In this scenario will the age, sex, address, and other demographic information be collected in order to deliver targeted advertising? Would consumers have to provide consent in order for their data to be collected? Could they choose not to provide their demographic information and not receive targeted advertisements but still receive the enhanced picture quality and public safety communications? If a consumer decides to provide their personal information, who is responsible for protecting it?

Given that the Next Gen TV standard is new, it is not yet known which advanced or interactive features of Next Gen TV may require viewers to provide some personal information. Broadcasters have stated that there will be opt-in procedures for the collection of consumer information, analogous to the opt-in procedures for the collection of consumer information used by smartphone apps, and that the use of any information collected will be governed by user licensing agreements of the type that are common when consumers activate a smartphone app. If a consumer decides to provide his or her personal data, the broadcaster will be responsible for securing the data in accordance with its stated privacy and data security policies and will be subject to possible enforcement action by the FTC for failure to adhere to those policies.

Q4. It is my understanding that another business model would use an encrypted signal, even for over-the-air television broadcasts that have traditionally been free. Would this require consumers to use some sort of encryption key to access the signal? Would such a key require a consumer to enter their age, address, gender, and other demographic information? If the free over-the-air signal is encrypted and needs demographic

information from a consumer to access it, do you still consider this service to be "free" in your opinion?

In the *Report and Order*, the Commission notes that broadcasters have acknowledged that free Next Gen TV signals may be encrypted. However, the Commission explicitly stated in the *Order* that any ATSC 3.0 programming that is encrypted must not require special equipment supplied and programmed by the broadcaster to decode ATSC 3.0 signals. Broadcast stations deploying ATSC 3.0 will also be required to simulcast their programming in the current DTV standard, so viewers will still be able to access unencrypted free, over-the-air programming.

Q5. There have been media reports that ATSC 3.0 would allow for better collection of audience data and would use this information as a sales tool for the advertisers, rather than relying on Nielsen or other measurement data. Will the new standards permit broadcasters to collect data on age, sex, income, address, or any other personal information? How will they be permitted to use this information? Will consumers be able to opt-out of having their data collected for this purpose?

The FTC already has broad authority to enforce consumers' privacy rights. As noted above in response to question 3, broadcasters have stated that personal data collected from ASTC 3.0 receivers will be anonymized so as not to identify individual viewers and that broadcasters will have access only to data on age, gender, and zip code, to the extent that viewers are willing to share such information. Additionally, any use of this information must be consistent with the particular entity's privacy and data security policies, FTC oversight, and other safeguards. Broadcasters have also indicated that there will be opt-in procedures for the collection of consumer information, analogous to the opt-in procedures used by smartphone apps, and that the use of any information collected will be governed by user licensing agreements of the type that are common when consumers activate a smartphone app.

Q6. It appears that new ATSC 3.0-capable TV sets could be susceptible to hacking, malware, and other potential computer viruses that could lead to predatory advertising instead of legitimate commercials. Is there anything contained in the proposal to address this potential problem?

There is nothing in the record to suggest that ATSC 3.0-capable receivers will be susceptible to hacking, malware, or computer viruses that could lead to predatory advertising instead of legitimate commercials. Although Internet connectivity and the ability to transmit applications to TV receivers will be new capabilities to over-the-air broadcasting, these features are not new to television receiver manufacturers. Smart TVs with Internet connectivity and the ability to run applications that can download and display over-the-top media are common.

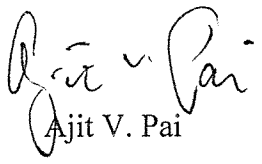
Q7. How many TV sets are in the country today, and what will happen to them when ATSC 3.0 is deployed? How many TV sets will need to be replaced when broadcasters are not required to carry both the current ATSC 1.0 signal and the new ATSC 3.0 signal? What would you estimate the approximate cost to consumers to replace these sets?

Although the Commission does not maintain data on the number of television sets in use in the United States, Nielsen data indicate that there are approximately 119.6 million U.S.

television households for the 2017-2018 television season and it is reasonable to assume that a substantial number of these households have multiple television sets. The voluntary deployment of Next Gen TV will not affect the ability of these television sets to receive free, over-the-air broadcast television signals. This is because broadcast stations deploying ATSC 3.0 will be required to simulcast their programming in the current DTV standard to ensure that viewers can continue to receive their existing broadcast service without having to purchase any new equipment. The Commission has not set an end date for the requirement that broadcast stations deploying ATSC 3.0 simulcast their programming in the current DTV (ATSC 1.0) standard. The Commission has stated that it will decide this issue in a future proceeding. In addition, the record suggests that it will be possible for consumers to easily upgrade their existing television sets to receive ATSC 3.0 transmissions by connecting converter equipment, such as an external tuner dongle, set-top box, or gateway device, to the HDMI ports on their television sets. Thus, most consumers that wish to view over-the-air television in ATSC 3.0 should be able to do so without purchasing new television sets.

I appreciate your interest in this matter. Please let me know if I can be of further assistance.

Sincerely,



Ajit V. Pai